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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,694	07/03/2001	Elmer L. Cook II	01-4888	1778

7590 10/23/2002
Edward M. Livingston, Esq.
628 Ellen Dr.
P.O. Box 1599
Winter Park, FL 32790

EXAMINER

VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 10/23/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/898,694

Applicant(s)

COOK, ELMER L.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-16, drawn to a structural reflective insulating material, classified in class 428, subclass 304.4+.
 - II. Claims 17-22, drawn to a method of making a structural reflective insulating material, classified in class 427, subclass various.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as one that applies an adhesive binding material to the layer of reflective foil by spraying or heat lamination. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
3. During a telephone conversation with Edward M. Livingston, Esq. on 09/24/2002 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims contain improper Markush language. The term "or" should be changed to -- and --. Applicant may use the alternative language such as "wherein the mesh material is aluminum or galvanized steel". See MPEP 2173.05(h).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Jr. et al (US 4,049,852) in view of Okey (US 4,468,431). Smith discloses a laminate of foam planks having a layer construction in the following order: an aluminum skin layer **76**, a first foam layer **72**, a scrim **74**, a scrim **73**, a second foam layer **71** and a glass fiber scrim **75** (figure 4, and column 5, lines 17-35). Smith discloses the aluminum skin layer **76** bonded to the first foam layer by a hot melt adhesive (column 5, lines 10-13). Smith is silent as to the reflective foil bound to the second foam layer **71** by an adhesive. Okey supplies the missing feature. Okey

teaches a composite for use in thermal insulation comprising a foam core **10** and a metal foil layer **12** bonded to the foam core by an adhesive **14** (figures 1 and 2).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the laminate of Smith, Jr. by replacing the glass fiber scrim **75** bonded to the second foam layer with the metal foil layer having the adhesive on one of its surface toward to the foam layer motivated to provide a laminate having high corrosion resistance and good thermal insulation.

8. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Jr. et al (US 4,049,852) in view of Okey (US 4,468,431) as applied to claim 1 above, further in view of Small et al (US 3,607,531). The combination of the primary and secondary references fails to teach the insulating material being polyethylene foam. Small teaches a heat insulator comprising polyethylene foam as the heat insulating material (column 1, lines 35-39). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the heat insulating material of Smith, Jr. by replacing polystyrene foam with polyethylene foam motivated to provide a low cost of the product.

With regard to claims 5-8, the combination of the primary and secondary references fails to teach the polyurethane adhesive. Small teaches a polyurethane adhesive for use to bond the foam layer to the skin layer (column 3, lines 48-50; column 4, line 22). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the polyurethane resin as an adhesive as

taught in Small because polyurethane resin is a desirable adhesive for use at the cryogenic temperatures.

9. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, Jr. et al (US 4,049,852) in view of Okey (US 4,468,431) as applied to claim 1 above, further in view of Mullens et al (US 6,119,465). The combination of the primary and secondary references fails to teach that the reinforcing scrim being sandwiched between the first and second foam layer is made of aluminum or galvanized steel. Mullens teaches the shipping container for storing materials at cryogenic temperatures comprising a steel mesh **26** enclosed into the foam **10** (figures 1 and 3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the reinforcing scrim in Smith, Jr. by the steel mesh as taught by Mullens motivated by the desire to obtain the laminate having high corrosion resistance and improved strength and durability.
10. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank et al (US 4,584,232) in view of Okey (US 4,468,431). Smith discloses a sound absorbing member comprising a metal mesh sandwiched between the two foam layers (figure 5). Frank is silent as to the reflective foil bound to the foam layer by an adhesive. Okey supplies the missing feature. Okey teaches a composite for use in vibration damping comprising a foam core **10** and a metal foil layer **12** bonded to the foam core by an adhesive **14** (figures 1 and 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the sound absorbing member of Frank by attaching the foil layer to the foam

layer via an adhesive motivated to provide a composite having superior sound absorption.

11. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank et al (US 4,584,232) in view of Okey (US 4,468,431) as applied to claim 1 above, further in view of Ogawa (US 4,522,165). The combination of the primary and secondary references fails to teach the sound absorbing material being polyethylene foam. Ogawa teaches a noise reducing cover comprising polyethylene foam as the sound absorbing material (column 5, line 25). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the sound absorbing material of Frank as modified by Okey by replacing polystyrene foam with polyethylene foam motivated to provide a low cost of the product.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (703) 605-4426. The examiner can normally be reached on Tuesday-Friday, 8:30 – 6:00 and on alternating Mondays .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Application/Control Number: 09/898,694
Art Unit: 1771

Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

HV
October 21, 2002

A handwritten signature in black ink, appearing to read "Terrel Morris", with a stylized, flowing script.

TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700